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[54] **ROOF STRUCTURE FOR LNG UNDERGROUND TANK AND CONSTRUCTION METHOD THEREOF**

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[57] **ABSTRACT**

PURPOSE: To protect an interior from a flying drop object by a method wherein new construction is applied on an existing LNG underground tank, being insufficient in protection against an unexpected flying drop object because of a roof being made of a steel, without varying an existing part.

CONSTITUTION: A ring beam foundation 5 is built to the outer peripheral part of an existing LNG underground tank having a roof 1 made of a steel being of spherical shell structure and a roof is structured such that a concrete roof 6 being of spherical shell structure is newly built to span a space above the concrete foundation 5 in a manner to cover the roof 1 made of a steel. In the construction method, an internal pressure in the tank is increased and a process wherein strip-form precast concrete members 7 are intercoupled in an annular shape by utilizing the roof 1 made of a steel serving as timbering is repeated, in order, toward the inside from the ring beam foundation 5. Finally, the concrete roof 6 being of spherical shell structure is caused to span in a manner to cover the roof 1 made of a steel.

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